

INJUN 5

Hi-Res Digital VLF, Binary

68-066B-02D

These data are contained on 2 CD-ROM's.

The KD and KW numbers and the time spans are as follows:

KD#	KW#	Time Spans
KD020440	KW000149	08/29/68 - 12/31/68
KD020441	KW000150	08/29/86 - 11/24/68

README

This set Ads contains waveform data from various experiments built at the University of Iowa. This data has been digitize using a 12 bit ATOM converter and then truncated to 8 bits thus giving a range of raw data from 0 to 255. A value of 127.5 will represent the 0 point of the waveform. The data records all have the same format an companion file contains more detailed inform about the modes and dates of the data.

The naming convention for the files is dddhhmm.yy(w or L) where w is the data file and L is the label file.

This set of CD will contain data for the following wideband instruments:

AMPTE
INJUN 5
Dynamics 1 and 2
ISEE 1 and 2
SSS 1
IMP 6
PDP SL2
HAWKEYE 1

Note some data set will take more than 1 CD.

The directory structure is:

CD -
|----- descriptions
| This directory contains references to
| descriptions of each instrument.

|----- format
| This directory contains the format of
| the data files. The format is the same
| for all spacecraft.

|----- software
| This directory contains some sample programs
| for reading the data and displaying some
| part of the record. This software was compiled
| and linked on a SUN system using Solaris and
| may need to recompiled and linked for other
| platforms.

|----- index

README

This directory contains a listing of the content of the data directories.

----- data

This directory contains the raw data and will be divided in to subdirectories in accordance with the operational mode of the instrument. The data file themselves will be in the form of DDDHHMM.YYw. With each data file there is a label file indicating the contents of the data file.

DIRECTORY

/* Description of directory structure */

Each data directory contains two files. The first is the data file, see the directory "FORMAT" for format of the data files. The second file is a header file which indicates what is in the associated data record.

The naming conventions for these records is:

dddhhmm.yy(w or L)

ddd is the day of the data.

hh is the hour of the data.

mm is the minute of the data.

yy is the year of the data.

w indicates that the record is a data record.

L indicates that the record is a label record.

FORMAT

/* General overview of the data record format */

Each record covers ten milliseconds of data. Each record consists of an 8 byte header and a variable number of 8 bit data values. The header items have the most significant byte first and can be declared on the MAC and the SUN as "int short" in C and real*2 in fortran. On machines like the VAX the 2 byte value must have the order of the bytes swapped. The data values are unsigned bytes ranging from 0 to 255 with 127.5 the 0 point value. These values are units representing the values of the digitized wave form.

- * The Header: four unsigned short values (8 bytes total)
 - the record size in bytes (not including these two bytes)
 - the time offset from the start of the minute in milliseconds
 - some sort of flag
 - the number of 8 bit data samples in this record

In order to get the actual time of the data, you have to deconstruct the filename. The format of the filename is:

ddhhmm.yyw

where yy is the year, ddd is the day of year, hh is the hour, and mm is the minute. 'w' stands for 'wideband' or 'L' for 'label'.

STRUCTURE

```
/* description of file structure */  
/* Data items are 8 bit unsigned bytes with values from 0 to 255 */  
/* the units are values proportional to the output of the sensor */  
/* with a zero of 127.5. */  
/* The first 4 columns are 2 bytes values are in MSB byte LSB byte*/  
/* order. */
```

```
OBJECT      = TABLE  
NAME        = UIOWA_ARCHIVED_WAVEFORM  
INTERCHANGE_FORMAT = BINARY  
COLUMNS     = 5  
ROWS        = 6000  
ROW_BYTES   = VARIABLE  
DESCRIPTION  = "University of Iowa single channel digitized  
               waveform file. Each file (table) contains data occurring in an  
               integral one minute interval, and each record (row) contains a  
               10 millisecond waveform series."
```

```
OBJECT      = COLUMN  
NAME        = REMAINING_ROW_BYTES  
DATA_TYPE   = MSB_UNSIGNED_INTEGER  
START_BYTE  = 1  
BYTES       = 2  
DESCRIPTION = "Byte offset to beginning of next record  
(row)"  
END_OBJECT  = COLUMN
```

```
OBJECT      = COLUMN  
NAME        = MILLISECOND_OF_MINUTE  
DATA_TYPE   = MSB_UNSIGNED_INTEGER  
START_BYTE  = 3  
BYTES       = 2  
DESCRIPTION = "Millisecond of minute corresponding to  
beginning of first sample in this record (row)"  
END_OBJECT  = COLUMN
```

```
OBJECT      = COLUMN  
NAME        = FLAGS  
DATA_TYPE   = MSB_UNSIGNED_INTEGER  
START_BYTE  = 5  
BYTES       = 2  
DESCRIPTION = "Flag indicating interpreted or interpolated  
timecode (0 or 1)"
```

STRUCTURE

END_OBJECT = COLUMN

OBJECT = COLUMN
NAME = SAMPLES
DATA_TYPE = MSB_UNSIGNED_INTEGER
START_BYTE = 7
BYTES = 2
DESCRIPTION = "Number of waveform samples in this record
(row)"
END_OBJECT = COLUMN

OBJECT = COLUMN
NAME = WAVEFORM_SERIES
DATA_TYPE = MSB_UNSIGNED_INTEGER
START_BYTE = 9
BYTES = 1
ITEMS = SAMPLES
OFFSET = 127.5
DESCRIPTION = "Consecutive 8-bit unsigned waveform
samples ranging from 0 to 255"
END_OBJECT = COLUMN

END_OBJECT = TABLE

END

REFERENCE

ISEE:

The ISEE 1 and 2 Plasma Wave Investigation, D. A. GURNETT, F. L. SCARF, R. W. FREDRICKS, and E. J. SMITH, Geosci. Electron, 16, 225-230, 1978.

DE

The Plasma Wave and Quasi-Static Electric Field Instrument (PWI) for Dynamics Explorer-A, S. D. SHAWHAN, D. A. GURNETT, D. L. ODEM, R. A. HELLIWELL, and C. G. PARK, Space Sci. Instrumentation, 5, 535-550, 1981.

IMP-6:

Electromagnetic Radiation Trapped in the Magnetosphere Above the Plasma Frequency, D. A. GURNETT and R. R. SHAW, J. Geophys. Res., 78, 8136-8149, 1973.

AMPTE:

The Plasma Wave Instrument On Board the AMPTE IRM Satellite, B. HÄUSLER, R. R. ANDERSON, D. A. GURNETT, H. C. KOONS, R. H. HOLZWORTH, O. H. BAUER, R. TREUMANN, K. GNAIGER, D. ODEM, W. B. HARBRIDGE, and F. EBERL, IEEE Trans. Geosci. Remote Sensing, GE-23, 267-273, 1985.

Hawkeye:

Direction Finding Measurements of Auroral Kilometric Radiation, W. S. KURTH, M. M. BAUMBACK, and D. A. GURNETT, J. Geophys. Res., 80, 2764-2770, 1975.

Injun-V:

Initial Observations of VLF Electric and Magnetic Fields with the Injun 5 Satellite, D. A. GURNETT, G. W. PFEIFFER, R. R. ANDERSON, S. R. MOSIER, and D. P. CAUFFMAN, J. Geophys. Res., 74, 4631-4648, 1969.

SSS-1

Plasma Wave Observations near the Plasmapause with the S3-A Satellite, R. R. ANDERSON and D. A. GURNETT, J. Geophys. Res., 78, 4756-4764, 1973.

Subject: [Fwd: PDP references]

Date: Mon, 31 Mar 2003 16:30:52 -0600

From: William Kurth <william-kurth@uiowa.edu>

To: Bob Brechwald <rlb@space.physics.uiowa.edu>

REFERENCE

Subject: PDP references
Date: Fri, 10 May 2002 12:01:54 -0500
From: William Kurth <william-kurth@uiowa.edu>
To: Joe Groene <jbg@space.physics.uiowa.edu>,
Larry Granroth <ljk@space.physics.uiowa.edu>,
William Kurth <wsk@space.physics.uiowa.edu>

OSS-1:

S. D. Shawhan, Description of the Plasma Diagnostics Package (PDP)
for the OSS-1 shuttle mission and JSC plasma chamber test in
conjunction with the Fast Pulse Electron Gun (FPEG), in
Artificial Particle Beams Utilized in Space Plasma Studies,
B. Grandal (ed.), NATO Conference Publication Series, Plenum
Press, pp. 419-429, 1982.

SL-2:

can refer to both the above and

W. S. Kurth and L. A. Frank, The Spacelab 2 Plasma Diagnostics
Package, J. Spacecraft and Rockets, 27, 70-75, 1990.

S-CUBED-A

Hi-Res Digital VLF, Binary

71-096A-07H

These data are contained on 2 CD-ROM's.

The KD and KW numbers and the time spans are as follows:

KD#	KW#	Time Span
KD020438	KW000147	01/22/72 - 01/25/72
KD020439	KW000148	06/19/72 - 08/06/72

README

This set Ads contains waveform data from various experiments built at the University of Iowa. This data has been digitize using a 12 bit ATOM converter and then truncated to 8 bits thus giving a range of raw data from 0 to 255. A value of 127.5 will represent the 0 point of the waveform. The data records all have the same format an companion file contains more detailed informal about the modes and dates of the data.

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FORMAT

/* General overview of the data record format */

Each record covers ten milliseconds of data. Each record consists of an 8 byte header and a variable number of 8 bit data values. The header items have the most significant byte first and can be declared on the MAC and the SUN as "int short" in C and real*2 in fortran. On machines like the VAX the 2 byte value must have the order of the bytes swapped. The data values are unsigned bytes ranging from 0 to 255 with 127.5 the 0 point value. These values are units representing the values of the digitized wave form.

- * The Header: four unsigned short values (8 bytes total)
 - the record size in bytes (not including these two bytes)
 - the time offset from the start of the minute in milliseconds
 - some sort of flag
 - the number of 8 bit data samples in this record

In order to get the actual time of the data, you have to deconstruct the filename. The format of the filename is:

ddhhmm.yyw

where yy is the year, ddd is the day of year, hh is the hour, and mm is the minute. 'w' stands for 'wideband' or 'L' for 'label'.

STRUCTURE

```
/* description of file structure */  
/* Data items are 8 bit unsigned bytes with values from 0 to 255 */  
/* the units are values proportional to the output of the sensor */  
/* with a zero of 127.5. */  
/* The first 4 columns are 2 bytes values are in MSB byte LSB byte*/  
/* order. */
```

```
OBJECT          = TABLE  
NAME            = UIOWA_ARCHIVED_WAVEFORM  
INTERCHANGE_FORMAT = BINARY  
COLUMNS         = 5  
ROWS            = 6000  
ROW_BYTES       = VARIABLE  
DESCRIPTION      = "University of Iowa single channel digitized  
waveform file. Each file (table) contains data occurring in an  
integral one minute interval, and each record (row) contains a  
10 millisecond waveform series."
```

```
OBJECT          = COLUMN  
NAME            = REMAINING_ROW_BYTES  
DATA_TYPE       = MSB_UNSIGNED_INTEGER  
START_BYTE      = 1  
BYTES           = 2  
DESCRIPTION      = "Byte offset to beginning of next record  
(row)"  
END_OBJECT       = COLUMN
```

```
OBJECT          = COLUMN  
NAME            = MILLISECOND_OF_MINUTE  
DATA_TYPE       = MSB_UNSIGNED_INTEGER  
START_BYTE      = 3  
BYTES           = 2  
DESCRIPTION      = "Millisecond of minute corresponding to  
beginning of first sample in this record (row)"  
END_OBJECT       = COLUMN
```

```
OBJECT          = COLUMN  
NAME            = FLAGS  
DATA_TYPE       = MSB_UNSIGNED_INTEGER  
START_BYTE      = 5  
BYTES           = 2  
DESCRIPTION      = "Flag indicating interpreted or interpolated  
timecode (0 or 1)"
```

STRUCTURE

END_OBJECT = COLUMN

OBJECT = COLUMN
NAME = SAMPLES
DATA_TYPE = MSB_UNSIGNED_INTEGER
START_BYTE = 7
BYTES = 2
DESCRIPTION = "Number of waveform samples in this record
(row)"
END_OBJECT = COLUMN

OBJECT = COLUMN
NAME = WAVEFORM_SERIES
DATA_TYPE = MSB_UNSIGNED_INTEGER
START_BYTE = 9
BYTES = 1
ITEMS = SAMPLES
OFFSET = 127.5
DESCRIPTION = "Consecutive 8-bit unsigned waveform
samples ranging from 0 to 255"
END_OBJECT = COLUMN

END_OBJECT = TABLE

END

IRM-AMPTE

Hi-Res Digital VLF, binary

84-088B-04D

These data are contained on 2 CD-ROM's.

The KD and KW numbers and the time spans are as follows:

KD#	KW#	Time Span
KD020442	KW000151	05/12/85 - 07/18/85

DIRECTORY

/* Description of directory structure */

Each data directory contains two files. The first is the data file, see the directory "FORMAT" for format of the data files. The second file is a header file which indicates what is in the associated data record.

The naming conventions for these records is:

ddhhmm.yy(w or L)

dd is the day of the data.

hh is the hour of the data.

mm is the minute of the data.

yy is the year of the data.

w indicates that the record is a data record.

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FORMAT

/* General overview of the data record format */

Each record covers ten milliseconds of data. Each record consists of an 8 byte header and a variable number of 8 bit data values. The header items have the most significant byte first and can be declared on the MAC and the SUN as "int short" in C and real*2 in fortran. On machines like the VAX the 2 byte value must have the order of the bytes swapped. The data values are unsigned bytes ranging from 0 to 255 with 127.5 the 0 point value. These values are units representing the values of the digitized wave form.

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ddhhmm.yyw

where yy is the year, ddd is the day of year, hh is the hour, and mm is the minute. 'w' stands for 'wideband' or 'L' for 'label'.

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/* the units are values proportional to the output of the sensor */  
/* with a zero of 127.5. */  
/* The first 4 columns are 2 bytes values are in MSB byte LSB byte*/  
/* order. */
```

```
OBJECT = TABLE  
NAME = UIOWA_ARCHIVED_WAVEFORM  
INTERCHANGE_FORMAT = BINARY  
COLUMNS = 5  
ROWS = 6000  
ROW_BYTES = VARIABLE  
DESCRIPTION = "University of Iowa single channel digitized  
waveform file. Each file (table) contains data occurring in an  
integral one minute interval, and each record (row) contains a  
10 millisecond waveform series."
```

```
OBJECT = COLUMN  
NAME = REMAINING_ROW_BYTES  
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BYTES = 2  
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(row)"  
END_OBJECT = COLUMN
```

```
OBJECT = COLUMN  
NAME = MILLISECOND_OF_MINUTE  
DATA_TYPE = MSB_UNSIGNED_INTEGER  
START_BYTE = 3  
BYTES = 2  
DESCRIPTION = "Millisecond of minute corresponding to  
beginning of first sample in this record (row)"  
END_OBJECT = COLUMN
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```
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NAME = FLAGS  
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START_BYTE = 5  
BYTES = 2  
DESCRIPTION = "Flag indicating interpreted or interpolated  
timecode (0 or 1)"
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OBJECT = COLUMN
NAME = SAMPLES
DATA_TYPE = MSB_UNSIGNED_INTEGER
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BYTES = 2
DESCRIPTION = "Number of waveform samples in this record
(row)"
END_OBJECT = COLUMN

OBJECT = COLUMN
NAME = WAVEFORM_SERIES
DATA_TYPE = MSB_UNSIGNED_INTEGER
START_BYTE = 9
BYTES = 1
ITEMS = SAMPLES
OFFSET = 127.5
DESCRIPTION = "Consecutive 8-bit unsigned waveform
samples ranging from 0 to 255"
END_OBJECT = COLUMN

END_OBJECT = TABLE

END

drwxr-sr-x	2	rlb	lstaff	1024	Jan	15	14:59	84133
drwxr-sr-x	2	rlb	lstaff	1024	Jan	15	15:00	84255
drwxr-sr-x	2	rlb	lstaff	1024	Jan	15	15:00	84264
drwxr-sr-x	2	rlb	lstaff	1536	Jan	15	15:01	84362
drwxr-sr-x	2	rlb	lstaff	1536	Jan	15	15:01	85080
drwxr-sr-x	2	rlb	lstaff	2560	Jan	15	15:02	85101
drwxr-sr-x	2	rlb	lstaff	512	Jan	15	15:02	85199
./84133:								
-rw-r--r--	1	rlb	lstaff	9793	Jan	15	14:59	1330513.84L
-rw-r--r--	1	rlb	lstaff	1321889	May	29	2002	1330513.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330514.84L
-rw-r--r--	1	rlb	lstaff	1586345	May	29	2002	1330514.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330515.84L
-rw-r--r--	1	rlb	lstaff	1586390	May	29	2002	1330515.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330516.84L
-rw-r--r--	1	rlb	lstaff	1586390	May	29	2002	1330516.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330517.84L
-rw-r--r--	1	rlb	lstaff	1586522	May	29	2002	1330517.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330518.84L
-rw-r--r--	1	rlb	lstaff	1586434	May	29	2002	1330518.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330519.84L
-rw-r--r--	1	rlb	lstaff	1586530	May	29	2002	1330519.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330520.84L
-rw-r--r--	1	rlb	lstaff	1586524	May	29	2002	1330520.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330521.84L
-rw-r--r--	1	rlb	lstaff	1586542	May	29	2002	1330521.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330522.84L
-rw-r--r--	1	rlb	lstaff	1586541	May	29	2002	1330522.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330523.84L
-rw-r--r--	1	rlb	lstaff	1586580	May	29	2002	1330523.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330524.84L
-rw-r--r--	1	rlb	lstaff	1587355	May	29	2002	1330524.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330525.84L
-rw-r--r--	1	rlb	lstaff	1586844	May	29	2002	1330525.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330526.84L
-rw-r--r--	1	rlb	lstaff	1509235	May	29	2002	1330526.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330527.84L
-rw-r--r--	1	rlb	lstaff	1443044	May	29	2002	1330527.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	14:59	1330527.bak
./84255:								
-rw-r--r--	1	rlb	lstaff	9911	Jan	15	15:00	2550724.84L
-rw-r--r--	1	rlb	lstaff	1581645	May	29	2002	2550724.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	15:00	2550725.84L
-rw-r--r--	1	rlb	lstaff	1581649	May	29	2002	2550725.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	15:00	2550726.84L
-rw-r--r--	1	rlb	lstaff	1581657	May	29	2002	2550726.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	15:00	2550727.84L
-rw-r--r--	1	rlb	lstaff	1581647	May	29	2002	2550727.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	15:00	2550728.84L
-rw-r--r--	1	rlb	lstaff	1581642	May	29	2002	2550728.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	15:00	2550729.84L
-rw-r--r--	1	rlb	lstaff	1581645	May	29	2002	2550729.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	15:00	2550730.84L
-rw-r--r--	1	rlb	lstaff	1581647	May	29	2002	2550730.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	15:00	2550731.84L
-rw-r--r--	1	rlb	lstaff	1581640	May	29	2002	2550731.84w
-rw-r--r--	1	rlb	lstaff	1815	Jan	15	15:00	2550732.84L

-rw-r--r--	1 rlb	lstaff	1581643	May 29	2002	2550732.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2550733.84L
-rw-r--r--	1 rlb	lstaff	1581654	May 29	2002	2550733.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2550734.84L
-rw-r--r--	1 rlb	lstaff	1581688	May 29	2002	2550734.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2550735.84L
-rw-r--r--	1 rlb	lstaff	1581620	May 29	2002	2550735.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2550736.84L
-rw-r--r--	1 rlb	lstaff	1581645	May 29	2002	2550736.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2550737.84L
-rw-r--r--	1 rlb	lstaff	1581633	May 29	2002	2550737.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2550738.84L
-rw-r--r--	1 rlb	lstaff	1581622	May 29	2002	2550738.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2550739.84L
-rw-r--r--	1 rlb	lstaff	1581627	May 29	2002	2550739.84w
./84264:						
-rw-r--r--	1 rlb	lstaff	9911	Jan 15	15:00	2640955.84L
-rw-r--r--	1 rlb	lstaff	1582848	May 29	2002	2640955.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2640956.84L
-rw-r--r--	1 rlb	lstaff	1582813	May 29	2002	2640956.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2640957.84L
-rw-r--r--	1 rlb	lstaff	1582840	May 29	2002	2640957.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2640958.84L
-rw-r--r--	1 rlb	lstaff	1582861	May 29	2002	2640958.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2640959.84L
-rw-r--r--	1 rlb	lstaff	1582932	May 29	2002	2640959.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2641000.84L
-rw-r--r--	1 rlb	lstaff	1582969	May 29	2002	2641000.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2641001.84L
-rw-r--r--	1 rlb	lstaff	1583059	May 29	2002	2641001.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2641002.84L
-rw-r--r--	1 rlb	lstaff	1583004	May 29	2002	2641002.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2641003.84L
-rw-r--r--	1 rlb	lstaff	1583052	May 29	2002	2641003.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:00	2641004.84L
-rw-r--r--	1 rlb	lstaff	1583066	May 29	2002	2641004.84w
./84362:						
-rw-r--r--	1 rlb	lstaff	9085	Jan 15	15:01	3621229.84L
-rw-r--r--	1 rlb	lstaff	263568	May 29	2002	3621229.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621230.84L
-rw-r--r--	1 rlb	lstaff	1578240	May 29	2002	3621230.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621231.84L
-rw-r--r--	1 rlb	lstaff	1577777	May 29	2002	3621231.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621232.84L
-rw-r--r--	1 rlb	lstaff	1577750	May 29	2002	3621232.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621233.84L
-rw-r--r--	1 rlb	lstaff	1577760	May 29	2002	3621233.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621234.84L
-rw-r--r--	1 rlb	lstaff	1578613	May 29	2002	3621234.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621235.84L
-rw-r--r--	1 rlb	lstaff	1581316	May 29	2002	3621235.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621236.84L
-rw-r--r--	1 rlb	lstaff	1581311	May 29	2002	3621236.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621237.84L
-rw-r--r--	1 rlb	lstaff	1581306	May 29	2002	3621237.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621238.84L
-rw-r--r--	1 rlb	lstaff	1577981	May 29	2002	3621238.84w

-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621239.84L
-rw-r--r--	1 rlb	lstaff	1569820	May 29	2002	3621239.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621240.84L
-rw-r--r--	1 rlb	lstaff	1510984	May 29	2002	3621240.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621241.84L
-rw-r--r--	1 rlb	lstaff	1558273	May 29	2002	3621241.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621242.84L
-rw-r--r--	1 rlb	lstaff	1554438	May 29	2002	3621242.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621243.84L
-rw-r--r--	1 rlb	lstaff	1561843	May 29	2002	3621243.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621244.84L
-rw-r--r--	1 rlb	lstaff	1561923	May 29	2002	3621244.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621245.84L
-rw-r--r--	1 rlb	lstaff	1561947	May 29	2002	3621245.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621246.84L
-rw-r--r--	1 rlb	lstaff	1561935	May 29	2002	3621246.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621247.84L
-rw-r--r--	1 rlb	lstaff	1561921	May 29	2002	3621247.84w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	3621248.84L
-rw-r--r--	1 rlb	lstaff	1567352	May 29	2002	3621248.84w
-rw-r--r--	1 rlb	lstaff	2051	Jan 15	15:01	3621249.84L
-rw-r--r--	1 rlb	lstaff	548864	May 29	2002	3621249.84w
./85080:						
-rw-r--r--	1 rlb	lstaff	9911	Jan 15	15:01	0800919.85L
-rw-r--r--	1 rlb	lstaff	1582885	May 29	2002	0800919.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800920.85L
-rw-r--r--	1 rlb	lstaff	1582879	May 29	2002	0800920.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800921.85L
-rw-r--r--	1 rlb	lstaff	1582871	May 29	2002	0800921.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800922.85L
-rw-r--r--	1 rlb	lstaff	1582851	May 29	2002	0800922.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800923.85L
-rw-r--r--	1 rlb	lstaff	1582837	May 29	2002	0800923.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800924.85L
-rw-r--r--	1 rlb	lstaff	1582827	May 29	2002	0800924.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800925.85L
-rw-r--r--	1 rlb	lstaff	1582797	May 29	2002	0800925.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800926.85L
-rw-r--r--	1 rlb	lstaff	1582802	May 29	2002	0800926.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800927.85L
-rw-r--r--	1 rlb	lstaff	1582810	May 29	2002	0800927.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800928.85L
-rw-r--r--	1 rlb	lstaff	1582826	May 29	2002	0800928.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800929.85L
-rw-r--r--	1 rlb	lstaff	1582816	May 29	2002	0800929.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800930.85L
-rw-r--r--	1 rlb	lstaff	1582825	May 29	2002	0800930.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800931.85L
-rw-r--r--	1 rlb	lstaff	1582843	May 29	2002	0800931.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800932.85L
-rw-r--r--	1 rlb	lstaff	1582850	May 29	2002	0800932.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800933.85L
-rw-r--r--	1 rlb	lstaff	1582857	May 29	2002	0800933.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800934.85L
-rw-r--r--	1 rlb	lstaff	1582870	May 29	2002	0800934.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:01	0800935.85L
-rw-r--r--	1 rlb	lstaff	1582829	May 29	2002	0800935.85w

./85101:

-rw-r--r--	1 rlb	lstaff	9911	Jan 15	15:02	1010513.85L
-rw-r--r--	1 rlb	lstaff	1585857	May 29	2002	1010513.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010514.85L
-rw-r--r--	1 rlb	lstaff	1585921	May 29	2002	1010514.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010515.85L
-rw-r--r--	1 rlb	lstaff	1585905	May 29	2002	1010515.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010516.85L
-rw-r--r--	1 rlb	lstaff	1585943	May 29	2002	1010516.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010517.85L
-rw-r--r--	1 rlb	lstaff	1585908	May 29	2002	1010517.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010518.85L
-rw-r--r--	1 rlb	lstaff	1585881	May 29	2002	1010518.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010519.85L
-rw-r--r--	1 rlb	lstaff	1585925	May 29	2002	1010519.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010520.85L
-rw-r--r--	1 rlb	lstaff	1585920	May 29	2002	1010520.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010521.85L
-rw-r--r--	1 rlb	lstaff	1586005	May 29	2002	1010521.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010522.85L
-rw-r--r--	1 rlb	lstaff	1586082	May 29	2002	1010522.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010523.85L
-rw-r--r--	1 rlb	lstaff	1586034	May 29	2002	1010523.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010524.85L
-rw-r--r--	1 rlb	lstaff	1586135	May 29	2002	1010524.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010525.85L
-rw-r--r--	1 rlb	lstaff	1586239	May 29	2002	1010525.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010526.85L
-rw-r--r--	1 rlb	lstaff	1586076	May 29	2002	1010526.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010527.85L
-rw-r--r--	1 rlb	lstaff	1586033	May 29	2002	1010527.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010528.85L
-rw-r--r--	1 rlb	lstaff	1586035	May 29	2002	1010528.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010529.85L
-rw-r--r--	1 rlb	lstaff	1586121	May 29	2002	1010529.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010530.85L
-rw-r--r--	1 rlb	lstaff	1586111	May 29	2002	1010530.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010531.85L
-rw-r--r--	1 rlb	lstaff	1586063	May 29	2002	1010531.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010532.85L
-rw-r--r--	1 rlb	lstaff	1586058	May 29	2002	1010532.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010533.85L
-rw-r--r--	1 rlb	lstaff	1586071	May 29	2002	1010533.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010534.85L
-rw-r--r--	1 rlb	lstaff	1586104	May 29	2002	1010534.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010535.85L
-rw-r--r--	1 rlb	lstaff	1586234	May 29	2002	1010535.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010536.85L
-rw-r--r--	1 rlb	lstaff	1586428	May 29	2002	1010536.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010537.85L
-rw-r--r--	1 rlb	lstaff	1586708	May 29	2002	1010537.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010538.85L
-rw-r--r--	1 rlb	lstaff	1587059	May 29	2002	1010538.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010539.85L
-rw-r--r--	1 rlb	lstaff	1587974	May 29	2002	1010539.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010540.85L
-rw-r--r--	1 rlb	lstaff	1586506	May 29	2002	1010540.85w

-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010541.85L
-rw-r--r--	1 rlb	lstaff	1585564	May 29	2002	1010541.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010542.85L
-rw-r--r--	1 rlb	lstaff	1585788	May 29	2002	1010542.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010543.85L
-rw-r--r--	1 rlb	lstaff	1585745	May 29	2002	1010543.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010544.85L
-rw-r--r--	1 rlb	lstaff	1585566	May 29	2002	1010544.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010545.85L
-rw-r--r--	1 rlb	lstaff	1585412	May 29	2002	1010545.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010546.85L
-rw-r--r--	1 rlb	lstaff	1578408	May 29	2002	1010546.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010547.85L
-rw-r--r--	1 rlb	lstaff	1573960	May 29	2002	1010547.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010548.85L
-rw-r--r--	1 rlb	lstaff	1574005	May 29	2002	1010548.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1010549.85L
-rw-r--r--	1 rlb	lstaff	1574023	May 29	2002	1010549.85w
./85199:						
-rw-r--r--	1 rlb	lstaff	9911	Jan 15	15:02	1990359.85L
-rw-r--r--	1 rlb	lstaff	1582293	May 29	2002	1990359.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1990400.85L
-rw-r--r--	1 rlb	lstaff	1582289	May 29	2002	1990400.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1990401.85L
-rw-r--r--	1 rlb	lstaff	1582285	May 29	2002	1990401.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1990402.85L
-rw-r--r--	1 rlb	lstaff	1582287	May 29	2002	1990402.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1990403.85L
-rw-r--r--	1 rlb	lstaff	1582281	May 29	2002	1990403.85w
-rw-r--r--	1 rlb	lstaff	1815	Jan 15	15:02	1990404.85L
-rw-r--r--	1 rlb	lstaff	1582292	May 29	2002	1990404.85w

README

This set Ads contains waveform data from various experiments built at the University of Iowa. This data has been digitize using a 12 bit ATOM converter and then truncated to 8 bits thus giving a range of raw data from 0 to 255. A value of 127.5 will represent the 0 point of the waveform. The data records all have the same format an companion file contains more detailed informal about the modes and dates of the data.

The naming convention for the files is dddhhmm.yy(w or L) where w is the data file and L is the label file.

This set of CD will contain data for the following wideband instruments:

AMPE
INJUN 5
Dynamics 1 and 2
ISEE 1 and 2
SSS 1
IMP 6
PDP SL2
HAWKEYE 1

Note some data set will take more than 1 CD.

The directory structure is:

CD -
|----- descriptions
| This directory contains references to
| descriptions of each instrument.

|----- format
| This directory contains the format of
| the data files. The format is the same
| for all spacecraft.

|----- software
| This directory contains some sample programs
| for reading the data and displaying some
| part of the record. This software was compiled
| and linked on a SUN system using Solaris and
| may need to recompiled and linked for other
| platforms.

|----- index

README

This directory contains a listing of the content of the data directories.

----- data

This directory contains the raw data and will be divided in to subdirectories in accordance with the operational mode of the instrument. The data file themselves will be in the form of DDDHHMM.YYw. With each data file there is a label file indicating the contents of the data file.